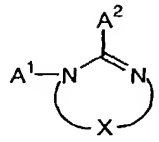
ABSTRACT

There is provided cyclic amidine compounds of the following formula (I):



(I)

wherein:

A^1 and A^2 are hydrogen atom, optionally substituted alkyl group; optionally substituted aryl group; or optionally substituted heterocyclic group; and

X is $-C(R^1,R^2)-C(R^3,R^4)-$, $-C(R^5)=C(R^6)-$, $-C(R^7,R^8)-C(R^9,R^{10})-C(R^{11},R^{12})-$, or $-C(R^{13},R^{14})-C(R^{15},R^{16})-NH-$ (wherein, R^1, R^2, R^3, R^4, R^5, R^6, R^7, R^8, R^9, R^{10}, R^{11}, R^{12}, R^{13}, R^{14}, R^{15} and R^{16} are hydrogen atom; halogen atom; optionally substituted alkyl group; optionally substituted aryl group; or optionally substituted heterocyclic group;

or pharmaceutically acceptable salts thereof.

These compounds have good affinity for α4β2 nicotinic acetylcholine receptors and activate the same to thereby exert a preventive or therapeutic effect on cerebral dysfunction.